\_\_\_\_\_\_

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2008; month=6; day=9; hr=10; min=34; sec=31; ms=285; ]

\_\_\_\_\_\_

## Validated By CRFValidator v 1.0.3

Application No: 10564375 Version No: 2.0

Input Set:

Output Set:

**Started:** 2008-05-12 12:21:36.709 **Finished:** 2008-05-12 12:21:47.275

2000 00 12 12.21.47.270

**Elapsed:** 0 hr(s) 0 min(s) 10 sec(s) 566 ms

Total Warnings: 51
Total Errors: 0

No. of SeqIDs Defined: 58

Actual SeqID Count: 58

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Input Set:

Output Set:

**Started:** 2008-05-12 12:21:36.709

Finished: 2008-05-12 12:21:47.275

**Elapsed:** 0 hr(s) 0 min(s) 10 sec(s) 566 ms

Total Warnings: 51

Total Errors: 0

No. of SeqIDs Defined: 58

Actual SeqID Count: 58

Error code Error Description

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## SEQUENCE LISTING

<110> Anderson, Annaliesa S. Kuklin, Nelly Jansen, Kathrin Ute

<120> POLYPEPTIDES FOR INDUCING A PROTECTIVE IMMUNE RESPONSE AGAINST STAPHYLOCOCCUS AUREUS

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<151> 2004-07-22

<150> 60/489,840

<151> 2003-07-24

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Lys Asn Tyr Pro Ala Ala Asp Glu Ser Leu Lys Asp Ala Ile Lys Asp 90

Pro Ala Leu Glu Asn Lys Glu His Asp Ile Gly Pro Arg Glu Gln Val 105

Asn Phe Gln Leu Leu Asp Lys Asn Asn Glu Thr Gln Tyr Tyr His Phe 120 125

Phe Ser Ile Lys Asp Pro Ala Asp Val Tyr Tyr Thr Lys Lys Lys Ala 135

Glu Val Glu Leu Asp Ile Asn Thr Ala Ser Thr Trp Lys Lys Phe Glu 150 155

Val Tyr Glu Asn Asn Gln Lys Leu Pro Val Arg Leu Val Ser Tyr Ser 165 170

Pro Val Pro Glu Asp His Ala Tyr Ile Arg Phe Pro Val Ser Asp Gly

180 185

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Asn 305	Thr	Asn	Asp	Lys	Thr	Asn	Glu	Ser	Ser	Asn 315	Gln	Ser	Asp	Val	Asn 320
	Gln	Tur	Dro	Dro		Agn	Glu	Sar	T. 211		Δan	Δla	т1Д	T.v.e	
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Pro	Ala	IIe		Asp	Lys	GLu	His		Ala	Asp	Asn	Trp	_	Pro	IIe
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Ala	Ser 370	Thr	Val	Glu	Pro	Ala 375	Thr	Val	Ile	Phe	Thr 380	Lys	Thr	Gly	Pro
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Glu	Asp		Asp	Tyr	Thr	Leu 455		Val	Phe	Ala	Gln 460		Ile	Thr	Asn
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T.011	Glu	T.v.e	T.011		Glu	T.ve	T.011	Pro		T.ve	Tur	T.v.e	Δla		Tur
		-	500			-		505		-	-	_	510		_
_	Lys	515		-			520					525			-
Ser	Ala 530	Val	Thr	Glu	Phe	Glu 535	Asn	Val	Thr	Pro	Thr 540	Asn	Asp	Gln	Leu
Thr 545	Asp	Leu	Gln	Glu	Ala 550	His	Phe	Val	Val	Phe 555	Glu	Ser	Glu	Glu	Asn 560
Ser	Glu	Ser	Val	Met 565	Asp	Gly	Phe	Val	Glu 570	His	Pro	Phe	Tyr	Thr 575	Ala
Thr	Leu	Asn	Gly 580	Gln	Lys	Tyr	Val	Val 585	Met	Lys	Thr	Lys	Asp 590	Asp	Ser
Tyr	Trp	Lys 595	Asp	Leu	Ile	Val	Glu 600	Gly	Lys	Arg	Val	Thr 605	Thr	Val	Ser
Lvs	Asp		Lvs	Asn	Asn	Ser		Thr	Leu	Ile	Phe		Tvr	Ile	Pro
_15	610		-1-			615	9				620		-1-		•
Δer	Lys	Δ1 a	Val	Тиг	Aen		Tla	Val	T.ve	Val		Val	<b>∆</b> 1 ⇒	Δen	Tle
625	-ys	111a	v u i	- Y -	630	111a	- T-C	v u i	-y 5	635	v u i	v u i	a	11011	640
	т	C1	C1	C1		TT	77-7	7	т1 -		7	C1	7	т1.	
GТĀ	Tyr	GIU	σтУ	GIN	ıyr	HlS	val	Arg	тте	тте	Asn	GIN	Asp	тте	Asn

645 650 Thr Lys Asp Asp Asp Thr Ser Gln Asn Asn Thr Ser Glu Pro Leu Asn 665 Val Gln Thr Gly Gln Glu Gly Lys Val Ala Asp Thr Asp Val Ala Glu 680 Asn Ser Ser Thr Ala Thr Asn Pro Lys Asp Ala Ser Asp Lys Ala Asp 700 695 Val Ile Glu Pro Glu Ser Asp Val Lys Asp Ala Asp Asn Asn Ile 710 715 Asp Lys Asp Val Gln His Asp Val Asp His Leu Ser Asp Met Ser Asp 725 730 Asn Asn His Phe Asp Lys Tyr Asp Leu Lys Glu Met Asp Thr Gln Ile 740 745 Ala Lys Asp Thr Asp Arg Asn Val Asp Lys Asp Ala Asp Asn Ser Val 760 Gly Met Ser Ser Asn Val Asp Thr Asp Lys Asp Ser Asn Lys Asn Lys 775 780 Asp Lys Val Ile Gln Leu Asn His Ile Ala Asp Lys Asn Asn His Thr 795 790 Gly Lys Ala Ala Lys Leu Asp Val Val Lys Gln Asn Tyr Asn Asn Thr 805 810 Asp Lys Val Thr Asp Lys Lys Thr Thr Glu His Leu Pro Ser Asp Ile 820 825 His Lys Thr Val Asp Lys Thr Val Lys Thr Lys Glu Lys Ala Gly Thr 840 Pro Ser Lys Glu Asn Lys Leu Ser Gln Ser Lys Met Leu Pro Lys Thr 860 855 Gly Glu Thr Thr Ser Ser Gln Ser Trp Trp Gly Leu Tyr Ala Leu Leu

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Ala 145	Pro	Asn	Ser	Arg	Pro 150	Ile	Asp	Phe	Glu	Met 155	Lys	Lys	Lys	Asp	Gly 160
	Gln	Gln	Phe	_		Tyr	Ala	Ser			Lys	Pro	Ala	_	
- 1	-1	m)	_	165	-	_	<b>a</b> 1	- 1	170	-	<b>61</b>	-	G.1	175	<b>61</b>
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Gln	Phe	Trp 195	Arg	Lys	Phe	Glu	Val 200	Tyr	Glu	Gly	Asp	Lys 205	Lys	Leu	Pro
Ile	Lys 210	Leu	Val	Ser	Tyr	Asp	Thr	Val	Lys	Asp	Tyr 220	Ala	Tyr	Ile	Arg
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Ala	Gln	Pro	Ile		Asn	Ser	Ala	Asp		Phe	Lys	Thr	Glu		qzA
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Val	His		Lys	Thr	Ile	Asp		Asp	Gly	Gln	Tyr			Arg	Ile
Wal	Λαn	435	Glu	Λla	Dho	Thr	440	Λla	7 an	Thr	7 an	445	Sor	7 an	Tve
	450					455	_				460	_			_
_	Glu	Gln	Gln	Asp		Ser	Ala	Lys	Lys		Ala	Thr	Pro	Ala	
465	_	_	_		470	_	_			475		_		_	480
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Asn	Asp	Ala 515	Ser	Ser	Glu	Ser	Gly 520	Lys	Asp	Lys	Thr	Pro 525	Ala	Thr	Lys
Pro	Thr		Gly	Glu	Val	Glu		Ser	Ser	Thr	Thr		Thr	Lvs	Val
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545	TL	т	7\	77-7	550	C1	Th	C	7.1 -	555	C	C	C1	7.1 -	560
ınr	TIIT	туѕ	Asp	565	val	GIN	TIIT	ser	570	стх	ser	ser	GIU	575	туз
Asp	Ser	Ala	Pro		Gln	Lvs	Ala	Asn		Lvs	Asp	Thr	Asn		Glv
-125			580	u		_1 L		585		_, L			590		- <b>-</b> y
His	Thr	Gln	Ser	Gln	Asn	Asn	Lys		Thr	Gln	Glu	Asn		Ala	Lys
							_						_		-

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Asn Thr Glu Ala Gln Pro Lys Thr Glu Ala Val Ala Ser Pro Thr Thr
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Thr Ser Glu Lys Ala Pro Glu Thr Lys Pro Val Ala Asn Ala Val Ser 65 70 75 80

Val Ser Asn Lys Glu Val Glu Ala Pro Thr Ser Glu Thr Lys Glu Ala 85 90 95

Lys Glu Val Lys Glu Val Lys Ala Pro Lys Glu Thr Lys Glu Val Lys
100 105 110

Pro Ala Ala Lys Ala Thr Asn Asn Thr Tyr Pro Ile Leu Asn Gln Glu 115 120 125

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Ala Pro Asn Ser Arg Pro Ile Asp Phe Glu Met Lys Lys Lys Asp Gly
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Thr Gln Gln Phe Tyr His Tyr Ala Ser Ser Val Lys Pro Ala Arg Val 165 170 175

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Gln Phe Trp Arg Lys Phe Glu Val Tyr Glu Gly Asp Lys Lys Leu Pro 195 200 205

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Ala Gln Pro Ile Tyr Asn Ser Ala Asp Lys Phe Lys Thr Glu Glu Asp 260 265 270

Tyr Lys Ala Glu Lys Leu Leu Ala Pro Tyr Lys Lys Ala Lys Thr Leu 275 280 285

Glu Arg Gln Val Tyr Glu Leu Asn Lys Ile Gln Asp Lys Leu Pro Glu 290 295 300

Lys Leu Lys Ala Glu Tyr Lys Lys Leu Glu Asp Thr Lys Lys Ala 305 310 315 320

Leu Asp Glu Gln Val Lys Ser Ala Ile Thr Glu Phe Gln Asn Val Gln
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Glu	Thr	Thr	Asn	Asp	Asp	Tyr	Trp	Lys	Asp	Phe	Met	Val	Glu	Gly	Gln
385					390					395					400
Arg	Val	Arg	Thr	Ile	Ser	Lys	Asp	Ala	Lys	Asn	Asn	Thr	Arg	Thr	Ile
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Ile	Phe	Pro	Tyr	Val	Glu	Gly	Lys	Thr	Leu	Tyr	Asp	Ala	Ile	Val	Lys
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Val	Asp	Lys	Glu	Ala	Phe	Thr	Lys	Ala	Asn	Thr	Asp	Lys	Ser	Asn	Lys
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